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ADDISON COLGROVE AND TWO SHOCKS OF HIS CROP.



ROY KOHL AND HIS UNCUT CROP.

The photographs above indicate the success that has attended the work of the Boys and Girls Experimental Club, formed last season under the direction of Superintendent Graham, among the Springfield Township Schools, Clarke County, and which has been mentioned several times in this publication. The Club idea among schools is an excellent one and is well worth the consideration of school boards throughout the State. Literature treating of the workings of this Club will be mailed on application to this Magazine.

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EDITORIAL CHAT.

It is each year becoming more evident that the work done by the College of Agriculture, while thorough and efficient in the lines followed, is not reaching the masses of the people as it should. By far the largest proportion of the farmers in the state have probably never heard of the college at all and many others have only a vague notion of the sort of work done. In short there is increasing evidence of a vital need for some form of extension work which shall carry the work of the college to the people and which shall present to the youth in our rural schools those principles of agricultural education which shall give to them a proper appreciation of the importance of agriculture as a science and as a vocation.

The Agricultural Students' Union during the past year has been seeking some feasible plan for attacking this problem with the result that at a recent meeting of the agricultural faculty it was laid before that body with a recommendation and request that some such line be adopted as a feature of the regular college work. After due consideration the



faculty passed a resolution favoring the adoption of some such plan of development and recommended to the president and board of trustees that a department of the college be created having to do with this work. The matter is therefore before the authorities and what action shall be taken will probably depend largely upon the appropriations which the university shall secure at the hands of the coming legislature.

We most heartily commend any action which has for its object the extension of agricultural education, for we feel that there is vital need for it in Ohio. We therefore urge upon all who have influence in furthering such work to spare no efforts in effecting its successful establishment.

We wish to call especial attention to the reunion of agricultural students at the meeting of the Agricultural Students' Union, mentioned elsewhere in this issue. No more valuable means of furthering the work of the college can be devised than this annual gathering of former students for the discussion of topics of importance to the college and to agriculture. The good that the individuals derive from the meeting is no less important and the person who absents himself from these gatherings is failing to avail himself of a privilege which will be of much profit and pleasure. Such annual gatherings serve as nothing else can to hold the old students into a united body and to bring forth ideas and suggestions for future work which may be of vital importance to the work of the college and to the individuals themselves. This meeting comes at the time of the host of other agricultural gatherings in Columbus in January and no progressive student who has ever attended the College of Agri-

culture should remain away if it is at all possible to be present.

The contest between the University and the sectarian schools of the state with reference to appropriations for the former has already begun and promises to be exceedingly bitter. It is an unwarranted hardship that is thus placed in the path of those in charge of the State University and is a development of a narrow-minded and selfish view on the part of the rival institutions. The history of other states has shown that such schools have always grown in approximate proportions with the state institutions and there appears, thus, no legitimate grounds for antagonism. Further, the state has a duty to her people which she must perform in supplying such an institution as a State University, and her educational system would not be complete if the higher training were left to sectarian colleges. And lastly, the rival institutions are only in small part duplicating the work of the University and could undoubtedly never be made to equal it in efficiency. It is hoped that the large number of alumni who this year secured legislative chairs may be able to turn the tide in the proper direction.

We wish to make an earnest appeal to all former students who have the welfare of the state at heart, and especially to those who are interested in the College of Agriculture, to do what they can to impress their legislative representatives with the extreme necessity for casting their vote on the proper side of the question. The body of alumni would be a power if each should do his duty in this regard.

We hasten to express our gratification in the election of Renick W. Dunlap to the state senate. We feel that in

Mr. Dunlap the Agricultural College has a friend and supporter from whom much can legitimately be expected in the coming legislature. While in college Mr. Dunlap showed himself a loyal supporter of all college enterprises and we feel that in the legislature he will do everything within the scope of honor to aid the college and to gain for it such recognition as it deserves at the hands of the legislators and the people of the state. We congratulate Mr. Dunlap and the people of this district upon his election.

The Smith Agricultural School.

No doubt few, if any, of the readers of the AGRICULTURAL STUDENT have ever heard of the Smith Agricultural School. In fact no such school yet exists, though it is about to become a possibility.

In 1776 there was born at Hatfield, Mass., in the Connecticut valley, a man by the name of Oliver Smith, who died in the same town in 1845. He was a very shrewd man, and accumulated a fortune, even for these days, for his estate at his death was valued at \$370,000. Mr. Smith was of Puritan stock, his family being prominent in colonial times and later. He was never married.

Before he died, Mr. Smith, in his will provided that young men who served a faithful apprenticeship until 21 years of age, and maintained a good moral character, should receive the sum of \$500. Also, girls that worked out as apprentices until 18 years or older, and maintained a worthy character, received a marriage portion of \$300, while girls that did not marry that were apprenticed, might draw \$300 in time of need. The sum of \$50 might also be used to be given by the trustees of the estate as

a marriage portion to worthy girls and also a like sum might be given to worthy widows.

Other charities were provided for in Mr. Smith's will, and these are legally known today in Massachusetts as "The Smith Charities." One of the provisions of this will, calls for the establishment of an agricultural school in the city of Northampton, Mass., where shall be maintained "a pattern farm," an experimental farm and an industrial school to be managed by three superintendents chosen by the city. Special provisions regarding the agricultural school did not permit its becoming a reality before December 22, 1905, and at that time the fund for this school will amount to \$300,000 or more.

Mr. Smith was a man who set a high valuation upon the importance of industrial training, and his will provides in fact for the establishment of a manual training school of agriculture in the Connecticut valley in Massachusetts, only eight miles or so from the Massachusetts Agricultural College.

At the death of Mr. Smith, a board of trustees was appointed to manage the estate, which consisted of real estate, stocks and bonds. So wisely has this fund been administered by the trustees in the past half century that it has grown to great proportions.

In fifty-one years the following expenditures, among others, have been made from this fund: Annuities to special beneficiaries, \$35,374; indigent boys, \$523,500; indigent girls, \$192,914; indigent widows, \$296,900; indigent young women, \$212,150. Numerous other funds have also been expended. As stated, when Mr. Smith died he left an estate of \$370,000. By wise investment and care this fund has grown until it now reaches a total of over one and a

third million dollars. No other such scheme of charity exists in America, and its beneficence has long been felt in the community for which it was intended. On Mr. Smith's death an attempt was made to break the will and this resulted in a famous trial before the Massachusetts Supreme Court, in which Rufus Choate, R. A. Chapman and C. P. Huntington appeared for the heirs-at-law, while Daniel Webster, C. E. Forbes and Osmyn Baker defended the will and won the case.

In the course of a comparatively short time the Smith Agricultural School will come into existence, and no doubt it will be a decided benefit to the young men who seek its advantages.

C. S. PLUMB.

Inauguration of President Gibbs.

Wednesday, October 28, was a great day in the history of the New Hampshire College of Agriculture and Mechanic Arts. It was the occasion of the dedication of a new agricultural building and the inauguration of the new president.

Governor N. J. Bachelder was present and delivered the introductory address, and the new president, Professor Wm. D. Gibbs, gave his inaugural address.

Dr. A. C. True, of the United States Office of Experiment Stations, delivered the dedicatory address. The new home of the Agricultural Department is Morrill Hall, a plain brick building, with granite trimmings, well adapted to the use for which it is intended.

At the dedicatory exercises Hon. Joseph B. Walker, president of the State Board of Agriculture and one of the first trustees of the college, demonstrated the rapid growth of the college by contrasting it as he saw it in 1868

with its present flourishing condition. In 1868 the first class of ten students entered the college, which was then without lands or buildings and with only one professor. It now has three hundred acres of land, eight up-to-date buildings, twenty-three professors and one hundred and thirty students, and boasts of an annual income of \$60,000, and has in sight an endowment of \$800,000. J. C. W.

Agricultural Education in Elementary Schools.

Within the past few years there has been a great change in our agricultural methods. Greater skill and knowledge is necessary now to be successful in farming than it was a century ago. The condition of the soil is different and therefore different methods of management must be used. The experiment stations have had a great influence in showing the farmer where he could raise better crops and stock, but the greatest factor in bringing about a slow but steady change is our schools. Heretofore the science of agriculture has only been taught in our colleges and universities and that in only comparatively few, but the movement is spreading until now every state has an agricultural college where the sciences relating to agriculture are taught.

But how many of our farmer boys and girls go to college? Not more than one-fourth at most and the other three-fourths either remain on the farm or seek employment in some secondary position, and never know that farming is a science or anything else than drudgery.

How are these boys and girls to be reached and told of the beauties of nature and the things relating to the farm? Only through the rural common school.

These schools were founded for the purpose of giving an elementary education, for that was all that was considered necessary for the farmer. And years ago in the beginning of our public school system, the three R's were about all that was taught. Of late years many things have been added for the enlightening of the country boy and girl, and why not agriculture? The boy on the farm has a keener appreciation of the things in nature when they are opened up to him than the city boy. Having grown up amidst such surroundings, he has witnessed the changes of nature without understanding them. When he studies about them in school he can apply what he has seen in the woods and field and will take a greater interest.

The first thing in introducing nature studies in the rural schools is to train the teachers themselves along this line. The majority of teachers are from the city and have been educated in the city schools and are not themselves acquainted with nature.

One of the greatest obstacles is the conservatism of the pupils themselves. They do not understand what this new study is and think it will crowd out some of their other studies. When they think of agriculture it brings up before them the operations of the farm, as plowing, harvesting, etc. Why should they study these things in school when they have known them all their lives? They must be taught that there is more to farming than the mere turning of the sod or harvesting of the crop. They must be taught the how and the why. They must be given a proper point of view. They must be given the proper inspiration. And this can only be done by a careful and methodical arrangement of their work and by a thorough preparation of the teachers. The schools of Ohio must come to this

sort of thing; the times are demanding it. Therefore let us not falter in our efforts to bring about the immediate appreciation of the value of this work.

T. L. W.

Specialization in Agriculture.

Specialization is, perhaps, one of the most common themes of this bustling age of industry. Specialists are the men upon whom is centered the gaze of the progressive world.

Well may this be true; for to the work of specialists in science, industry and invention are due the great achievements of the present age. The results of the work of the world's great specialists are too numerous and too well known to need mention.

The specialist is the man who builds higher or digs deeper than other men. We take it, that every man has it in him to build a structure and that the extent of the structure will depend upon his personal ability. The ordinary man builds in every direction while the specialist builds in one. Therefore we would expect the structure of the specialist to reach out farther into space and we would expect him to accomplish more at solving one problem than the other man at solving three.

So it is, we have had throughout the whole history of the world men who have devoted their whole attention to one particular subject and the world has been benefitted thereby. The tendency to specialize has been growing, until the present age is considered as an age of specialists. The efficiency of this method of labor is demonstrated by the fact that there has been greater progress in art, science and industry in the last fifty years than in any preceeding fifty years.

To our minds, the efficiency of the specialist in science, all of the professions, the commercial and manufacturing world, has been clearly demonstrated. The question then arises, which appeals to us as agriculturists, is there a like possibility of specialization in agriculture? It has long been held that the farmer cannot specialize, not to the extent, perhaps, that other men do, but the up to date farmer must specialize or he will lose in the race for existence. To show what specialization has done for the farmer, we have only to look back to the time when he manufactured his own tools, clothing, etc., and did all of the other work connected with his farm. To day the specialist manufactures his clothing and equips his farm with tools and buildings. Also the dairy specialist, who can no longer be considered an agriculturist, but a manufacturer, manufactures his dairy products in cheese factory and creamery. Formerly the farmer was his own buyer and seller, now the commercial specialist takes charge of that. The farmer specializes farther than this. Some make a speciality of some particular farm crop or some kind or breed of livestock.

Thus we see that farmers do specialize although not to so great an extent as other men. We predict that the farmer will continue to specialize, but that he will never reach a high degree of specialization. The very nature of the work will prevent it, for best farm practice demands rotation of crops etc. Also, the factors and forces with which a farmer has to deal are so varied and multiple and all must be mastered to a certain extent, so that the highest degree of specialization is impossible. Must we understand from this, that the farmer is to lose in the struggle, and that there is to be no more achieve-

ments in the field of agriculture, because the farmer cannot specialize? If the farmer himself cannot specialize to a great degree, there is a specialization in agricultural education. The agricultural colleges all over the country are training specialists who are to come to the aid of the farmer. They are also training the farmer himself. In this fact we see the brighter outlook for the future of agriculture. We see bright prospects for both the specialist in agriculture and also the farmer.

A specialist is of necessity a narrow man. A man who builds high cannot build wide. The specialist who would accomplish most must build on a solid foundation which is in proportion to the structure which he intends to erect. Thus a man of greater ability needs a broader foundation or his structure will be out of proportion and may fall. In this age of intense specialization we are finding such wrecks all about us. Herein we see the success of the agricultural specialist. The work of the engineer is based upon but two or three sciences while the work of the agriculturist is based upon all. A man to be a specialist in any branch of agriculture must have a good training in all of the natural sciences besides chemistry and mathematics, thus precluding the possibility of his becoming a narrow specialist. The harmful, growing tendency to early specialization which is but the natural extreme, and which is showing itself in the tendency of certain colleges to shorten their courses, is checked in agriculture by the broadness of agricultural courses, which are based upon the broadness of the work.

These schools which are training the agricultural specialists are also training farmers, giving them the same general training which is the foundation for the

specialists work. Who cannot foresee the result of this work? It has been said that upon the farmers of a country rests its destiny. In the future this is to be more true than in the past. The increasing specialization is producing a race of narrow minded men. There is an ever increasing number of those structures which are falling of their own weight, and a larger number which will fall when the breezes of a disturbed political and social atmosphere blow upon them. Then, as never before, will there be a need of broad minded men, who have not been narrowed by intense specialization and who have been broadened by receiving, analysing, sympathizing, accepting and rejecting those theories which have been presented them by their specialists.

We must continue to educate specialists in agriculture who have built their work upon a broad foundation. Along with these we must continue to send into the country onto the farm an increasing number of college trained men who can control the work of the specialist, and who, when the time comes are broad enough to take the reins of government and wisely guide us out of the dangers into which specialization will some day bring us.

M. O. Bugby.

Annual Students' Reunion.

The annual meeting of the Agricultural Students' Union will be held as usual this year at the time of the regular agricultural meetings which convene in Columbus about the middle of January, and Friday, January 15, has been decided upon for the date of this meeting. Instead of the single evening session which has formerly been held the Union proposes this year to hold an all-day

session with such special features as a corn exhibition and a repetition of the luncheon which last year formed such an enjoyable part of the program. Mention is made elsewhere in this issue of the corn exhibition which has been arranged by Mr. Goddard.

We wish to urge every ex-student and alumnus of the Agricultural College to be present at this meeting. No better means can be devised for keeping in touch with the college and the agricultural development of the state than this annual gathering of former students of the Agricultural College. Last year's meeting was pronounced a great success by all who were in attendance and we do not believe that any former student can remain away without missing a great opportunity for enjoyment and for bettering his conditions. The Union this year has made such strides in advance of what has ever before been attempted that the amount of work which has been done is really enormous and the plans for the coming year which are to be discussed at this meeting will be of great interest to all who are interested in the agricultural development of the state. The Union has become a power and the interest in its work is increasing with great rapidity.

We hope that every graduate or former student of the Agricultural College who can possibly get away from home will be present at this meeting. It will be of much value to every one. The greatest event in the history of the Union is expected and every old student should be there. Further announcements will be made later.

Forestry as a Profession.

The following is an extract from a lecture recently delivered at the University of California by Mr. Gifford Pin-

chot, Forester of the United States Department of agriculture :

"The inducements for a young man to enter on a profession depend on the opportunities that it offers, the economic conditions and his special fitness for the work. In the United States there is a great demand for foresters. The first concept must be an idea of the wideness of the field and the relation it bears to a vast number of other economic questions, transportation and mining. All experience and knowledge of books is useless without observation. It is only through observation that he can learn to diagnose present needs and reason out what will be the needs of the future. A day of observation in the woods is of the hardest work, because observation is a mental strain. If I were advising a young man I would say, cultivate your powers of observation. The first thing to do is to study silviculture, which consists in understanding the effects upon trees of light and shade, moisture and dryness, the germination of seeds, where they come up, and the struggle of young plants.

"Closely allied to forestry and more intimately related to it than botany is lumbering. There has been an idea throughout the United States that botany is the first thing prerequisite to a study of forestry. It is necessary, but the forester must know the quality and kind of lumber, grading of logs and transportation. This is summed up in the scheme for handling a forest which also requires a knowledge of what timber is on the ground, how fast it is growing, the product per acre and how it is best grown.

A man entering upon the profession of forestry must have physical hardness and self reliance, because in the first place there are severe requirements on the physical system, and in the second

place he is frequently thrown upon his own responsibility.

People think forestry will make large demands for men, but I believe we must expect that public interest will diminish, and after a time increase. The work must be taken up with the understanding that there are parts of the road that are not easy. If a man fitted for the work takes it up and then drops it he regrets it but one who is fitted and holds to it is never sorry. Men in this profession will make as much money as university professors, but can never succeed financially like the leading doctor, lawyer or mining engineer. Mature men and well prepared men are needed in forestry. They have to deal with many hard questions which come up from time to time. A man should first have a college training in the auxiliary sciences and then specialize in forestry in post graduate work. I want good men in forestry. We haven't enough, but I don't want anyone to take it up with a misunderstanding of the hardships. I would not be in forestry and would not want you to go into it unless it is well worth our while..

The territory west of the Mississippi river is 71 per cent. of the territory of the United States, and this immense tract of land means forestry. Much of the country is irrigated, and to conserve the water supply the slopes must be covered with forests and chapparal. The present consumption of timber would eat up the supply in a comparatively short time, hence forestry must come and protect the timber lands, the supply of men to do the work is inadequate. Private owners of forest lands, the states, which own less, and the United States government, with its 65,000,000 acres of forest reserve, are in need of competent men to regulate the cutting of timber. The Bureau of Forestry has

asked for men, but much work is left undone because competent Americans cannot be found to do it. At present there are demands from Hawaii and Wisconsin for men to take charge of forestry work at large salaries, but useful men must be taken from their present positions to satisfy this demand. When these men are sent out there are none to take their places. There are 5,000,000 acres of forest lands untouched because foresters are not available. Men are holding cut-over lands for a second cutting and need men to look after them. The Southern Pacific Company is holding its lands and establishing forestry.

The Philippine Islands will soon be demanding a large number of foresters. Dense forests, rich in the value of timber, and growing thousands of feet per acre, cover these islands. These forests are comparatively untouched except along the coast where they grow down to the water's edge. The lumbering interest is waiting the introduction of machinery and foresters. Men will not go, as there are ample opportunities in this country. They make a mistake and the scarcity of men has left vacant the ten positions now to be filled. This is one of the facts that make it important that a school of forestry should be established on the Pacific coast. Any irrigated country is a guarantee of interest in forestry. The great coming industry of the west is irrigated agriculture, and the demand for forests to conserve the water supply will grow indefinitely. Where will the foresters be obtained?

The question arises, Why not employ men from abroad? There is a greater supply of foresters in Europe than is needed and they want to come to America. My reply is, we need men trained here, not trained in European methods exclusively, but men with

American ideals dealing with Americans. No foreigner has had a chance, and I believe my choice was wise. Where shall we look for trained men? There are schools which try to teach forestry, but only two have established departments of forestry. These are the University of Michigan, with a school just established, and Yale. The product of these schools is likely to be required over and over again in the next few years. The University of Nebraska has one man to teach forestry.

If a man is going into forestry he must have a thorough training and it must be a professional training. A school on the Pacific coast must turn out men ready to take up any work in forestry. At present we need a force of really trained men. There is an idea prevalent in America that any man may do forestry work, and this idea stands in the way of establishing forestry schools. Though the plans for carrying on work must be simple and applicable to men who have not studied much, yet the men who make the plans must be trained, in order to get the point of view.

Corn Exhibition.

The corn exhibition that is to be made in connection with the meeting of the Agricultural Students' Union is exciting considerable attention. It will be a unique and valuable feature of the meeting and it is hoped that there will be a large number of exhibitors. The exhibit is open to those parties who are making the corn variety test with the Union of which there are a very large number this year.

The purpose of the exhibit is to bring out the best varieties of corn for each section and the varieties will therefore be classified and judged by sections

since it is realized that farmers in the northern part of the state, for instance, will find a different variety suited to their conditions from those in the southern counties. The corn is to be carefully scored by impartial judges who will then give their reasons for making their decisions and a general discussion of methods of corn judging and corn selection will follow. The winners in this exhibit will secure the opportunity of having their variety tested at the Ohio Experiment Station, which will serve to give the grower of valuable varieties no little notoriety and credit throughout the state.

All persons who have made this test this year should not fail to be represented in the exhibit.

A School Garden Exhibit.

At the School of Horticulture at Hartford, Connecticut, in September a large School Garden Exhibit was held in which there were 150 individual exhibits made by boys and girls who have been working gardens the past season and by teachers who have been taking the course in gardening. The exhibits consisted of many kinds of vegetables and flowers. Prizes were awarded for the best kept gardens, the best kept note books and the best exhibits of products grown. A hoeing contest was held which added much to the interest of the occasion. The experimental plats of the school showed a great variety of field crops and vegetables, nursery stock, flowers, etc.

The school had this year one hundred and twenty boys and girls and twenty-two teachers from the public schools. The interest manifested was very great and serves to illustrate the advancement that is being made in many of our eastern states in this line of work. Our west-

ern states, although existing under different agricultural conditions cannot ignore such attempts to reach the youth if they are to do their full duty in extending agricultural education and advancing the cause of agriculture.

Short Course in Animal Industry in Iowa.

A two weeks' course in the judging, feeding, breeding and management of live stock is offered by the Department of Animal Husbandry of the Iowa State College, beginning January 4.

The course is not intended for young men who have the time and opportunity to take a more thorough course, but it is intended especially for the large number of busy men who cannot avail themselves of the opportunities of taking a full course in agriculture. This is the fourth year that this course has been offered and it has met with such popular favor in past years that it has been found necessary to greatly enlarge the accommodations and now one thousand students may be received.

In addition to the regular corps of instructors the services of some of the most prominent live stock experts on the continent have been secured. Each being a specialist in his particular line, the course presents an exceedingly strong corps of instructors.

A slaughter test will be included, in which animals representing each of the various market classes of cattle will be inspected on foot, then killed, cut up and discussed in detail by John Gosling, of Kansas City, a man of wide experience and a master of his work.

A new and important feature of this year's work will be an advanced course for those who have attended in previous years. This will include a critical study of the characteristics of the various

breeds of domestic animals, points to be observed in the building up of pure bred herds, with lectures on the principles of animal breeding, care and management of all classes of animals.

J. C. W.

A Minnesota View of Rural School Agriculture.

The subject of education in our rural districts, though not one of recent origin or one of unrecognized importance, is one of the problems of the day which demands immediate solution. Much of the effort toward developing educational systems has been expended along the lines of so-called higher education and the advance of the city school standards. Free swing has been allowed the school and scholar of our rural world, until it became a recognized fact that the rural student was not up to the required standard, if entrance to anything higher than the country school was desired.

It is a well recognized fact that the progress of a country is marked by the prosperity of the farming population. Therefore, it is at once obvious that the farmer should have not merely a moderate education, but he should be thoroughly educated in the line of business in which he is engaged. In times past he has been deprived of an opportunity to get such an education, and even yet the chance is open to comparatively few.

The time is past when we need to put so much stress upon specialists and the so-called higher education, but the time is now ripe for systems of education for the common people which represent the greater portion of our country's population. Educate the majority and the general standard of our nation will be materially improved. In the schools of our most excellent city systems, students are trained along lines which will be of benefit to them in after life. Full

recognition is given the fact that to be a man among men in any line of business a person must be thoroughly trained in both the science and the arts of business. This is no less true of farming than of any mercantile or other business.

Heretofore, the farm boy seeking an education beyond the common school was forced to attend the city schools, which though adequate for their purpose, were unable to give the training needed for a farming business, and tended to divert the interest from the farm rather than toward it. In recent years, however, our School of Agriculture has been the goal and educational ideal of our country school student and its growth has been very flattering. In the year 1888, the first year of the school, the enrollment was 47. From that time the attendance has steadily increased until today we have an enrollment of 475. These figures are not only very flattering, but show a demand and appreciation for agricultural training. In all of the schools of the state there are, approximately, 414,671 pupils. Comparing this figure with this year's agricultural school attendance, it is seen that only about one in 1,200 of the pupils takes up the work in agriculture, which is a very small percentage compared with the importance of the subject. From recent statistics, it is found that there are about 215,415 in the common district schools, and by comparing this with the agricultural school attendance we find that about one in 450 gets an agricultural education. Is not this an alarmingly small amount when fifty per cent. of our state's population is engaged in rural pursuits?

From these figures it is apparent that our present agricultural teaching does not reach the great mass of pupils needing training in agricultural lines. Recognizing this fact, a movement is now being made to introduce agriculture into the common schools of our state. This

may seem, at first, absurd, but everything must be given a start, which, though perhaps not on a permanent basis, will lead to something better. The main idea in all teaching, whether primary, secondary, or for higher education, is to get the scholar to think and work problems for himself. By introducing agricultural training into our common schools, it is hoped to interest the farm boys and girls in the everyday life about them and to get them to asking the whys and wherefores of farm operations and of nature's doings. The seed, for example, will germinate and produce a plant, if placed in the ground under certain conditions. But what are these conditions? We say right away—heat, moisture and air, but the pupil who has not had his attention called to it, thinks little or nothing about the reasons for germination, though perhaps he has planted hundreds of seeds. Again, we see that two plants growing side by side are unequal and to all appearances they have equal advantages; one seems to be much more vigorous than the other. If we plant two seeds, one plump and well matured, and the other shrunken and immature, we find that the one will germinate quicker and will produce 50 per cent. better plant than will the other. Thus it may be shown that the vitality of a seed has much to do with the strength and vigor of the plants. These are only two of the many ways in which the pupil may be brought in contact with the happenings of nature, but they go to show that there is a place and room for agriculture in our rural schools and that the movement toward its introduction is not without its possibilities. Other illustrations may be made to show the reason for plowing and cultivating and of capillarity—still others to show the reason for silks and tassels on the corn stalk and why the silks are farther down on the stalk, and so on.

Our legislature, at its last session, provided that \$4,000 be expended, under the direction of the Division of Agriculture, University of Minnesota, in introducing agriculture into the common schools. Accordingly, there has been prepared a bulletin containing a series of 235 exercises, with 80 illustrations. These exercises can be worked out, with the material in hand, in any district schoolhouse. They include problems dealing in all phases of farm life: horticulture, dairying, animal husbandry, cooking, etc. When once carried out, they will give the student an idea not only of the things pertaining directly to the subject, but will make him think about everything that comes to his notice. And with the thought will come a wonder in regard to the causes of all these happenings. Some, perhaps, will be found investigating for themselves. In this way an interest will be aroused and a desire for further enlightenment, and the final outcome will be the uplifting or elevating of the standard of rural life, and the nation will be proportionately benefited.

Minnesota is an agricultural state. It always has been and always will be. Its soil is especially adapted to diversified farming, and its people are destined to become strong factors in civil and social life. Fully one-half of its population will always be engaged in agricultural pursuits. Then why not introduce agriculture into our common schools and begin at once educating men and women for their choice of vocations?—Coates P. Bull, in *Farm Students' Review*.

Cornell's New Professor in Extension Work.

At the last meeting of the board of trustees of Cornell University Dr. S. W. Fletcher, of the West Virginia Experiment Station, was chosen assistant professor of extension work in agriculture,

to succeed Professor John Craig, who now becomes professor of horticulture.

Prior to his election to the position in West Virginia, which occurred in 1902, he was Professor of Horticulture in the College of Agriculture at Pullman, Wash. Professor Fletcher holds both a Master's and a Doctor's Degree from Cornell University, and is admirably fitted for the new work.

The success of the extension plan in New York State is becoming each year more evident. The field is a large one and other states are rapidly coming to appreciate the necessity for such work. Ohio should not be slow in realizing her opportunities.

Elements of Dairying.

The above is the name of a book recently published by Professor Decker. It is meant for a text for students of dairying and for a book of information for practical dairyman, both objects being admirably filled in its method of compilation. The style is clear cut and the method of presentation carefully planned. It is neat in appearance, cleverly illustrated and the arrangement and nature of material indicates the author's thorough acquaintance with the subject. It is what it stands for, the elements of dairying, concisely and carefully arranged.

The book is meeting with much favor among agricultural colleges and has already been adopted as a text in some of the more important institutions.

Ohio State Dairyman's Association.

The State Dairyman's Association will hold its annual meeting at Townsend Hall January 27, 28 and 29. A feature of the meeting will be a very large exhibit of dairy apparatus and

special time will be set apart for its inspection. Professor C. D. Smith of Michigan Agricultural college and Prof. White of Minnesota, will deliver addresses, and several special features have been arranged so that a rousing time is anticipated. Visitors will find a convenient and pleasant lunch room on the grounds and everything has been arranged for a most interesting and instructive session.

Special dairy meetings have been arranged for Belmont and Guernsey counties for the last of the month and one will be held later at Salem. A number of petitions have been received for meetings in the north eastern part of the state.

The Shackery creamery will start a new skimming station at New Carlisle and a meeting will probably be held there later.

The Agricultural Graduate a Missionary.

In the dark days of mediaevalism all knowledge of the arts and sciences was confined to the select few. Behind the walls of the monasteries lay imprisoned the wisdom of the ancient world. To the monks alone was this knowledge known; they spent their whole lives immured within their own cloister. Any young man who came to the monastery for an education put on the black robes of the monk signifying that he was to spend the rest of his life isolated from the world.

No longer does the monastic theory of learning exist. The young man who seeks an education now does not put on the robes showing that he is to remain with the college forever. When he graduates he dons the cap and gown proclaiming to the world that he is now ready to divulge his knowledge.

Is the monk or student the forerunner of civilization? Is it the college professor in his class room or is it the college graduate living his life among the uneducated and ignorant, who makes the world better and wiser? An educated man can and will do more good in an unenlightened community than in a community where culture and learning dwell side by side. The opportunity to teach and minister to the needs of his neighbors comes to him daily.

When a college spends four years in educating a young man, that young man is expected to repay his Alma Mater for the time and attention that she has spent on him, just as the son who has been brought up carefully by his mother hopes some day to win fame and honor for her. In fact, the agriculture graduate has a greater opportunity for improving his community than any other man; he can repay his college ten-fold if he only applies himself.

How selfish is the young man who leaves college to live a life for his own good and never once thinks of his uneducated brother who plods along at his side. No doubt the college-bred man is the superior for he is aided by the knowledge he has accumulated while at college; but, notwithstanding, he never once tells the secrets of agriculture to his neighbor. This man is like the monk of by gone days. Yet every day we see educated farmers who are similar to him. Their only thought is of themselves or of their money. They have not time to pay attention to their neighbors' methods of agriculture; but merely laugh that they themselves are able to do better. Their only ambition is money and for it alone they strive. If they are the richest men in the community, is it any great credit to the college? The state educated them not for

the mere purpose of enriching themselves; but that they should better their fellow men and promote civilization. The state could not afford to waste her money in educating the small per cent. of her young men if she intended only the students to receive the benefit; the state pays for the education and therefore the state should derive the good and not only the individual.

The college graduate should do more than think and work for himself alone. If he lives in a community where the science of agriculture is but little understood, he can not only set a good example to his neighbors by his farm buildings, crops and stock, but he can also give advice and encouragement to them in the best methods of farming. Moreover he can form clubs among the farmers where the latest topics of agriculture can be discussed and new ideas formed. With his broad education and wide experience he can arouse new enthusiasm among men who have never made any advancement whatsoever in agriculture. He can introduce the best agricultural journals and likewise the experiment station bulletins into his vicinity keeping his neighbors well informed on the latest agricultural inventions and the best methods of farming.

This one man can bring about a reformation in his community that will not only be a benefit to his neighbors but also a credit to his college.

There are other things on this earth that are more desirable than money. The names of men that appear on the pages of history are not those who possessed the greatest wealth, but are those who did the most in advancing civilization.

The memory of the good that a man does exists longer than his wealth; the memory alone inspires the future generations. Application of man's efforts

brings about marvelous results. John Wesley spent his whole life in preaching the gospel and his name shall exist forever in the memory of the American people. Horace Mann, by the application of his knowledge, changed the school system in the United States, bettering it in every way, and today we see his name in close association with the school system from which it can never be divorced.

There is just as wide a field for the agricultural graduate as he goes forth into the world with his learning. His opportunities are unnumbered, his work unlimited.

He is a missionary sent out from his church clothed with his cap and gown, proofs of his ability. He has been taught the gospel and the more people that he converts to his faith the better will his mother church feel repaid.

E. S. Poston.

Alumni News.

J. C. Britton '98, is at Washington D. C. in the employment of the Bureau of Soils.

H. G. Beale, '01, is managing one of his father's farms near Mt. Sterling and is running a shoe store as a side issue.

Glenn L. Allen, ex-'03, is farming near Good Hope, Fayette county.

H. S. Andrew is engaged in stock raising at New Moorefield, Ohio.

Arthur, Carl and George Abbott are engaged in farming, largely stock feeding, near Medina, Ohio.

W. R. Beattie, '94, is now Assistant Horticulturist in charge of Arlington Experiment Farm, in the Bureau of Plant Industry, U. S. Department of Agriculture.

H. S. Belden is with the Bureau of Soils, U. S. Department of Agriculture

and is at present located in Nebraska.

H. D. Bowsher, ex-'00, is the owner and proprietor of "The Practical Stock Farm" near Buckland, Auglaize county. Mr. Bowsher is especially interested in cattle and hog raising and is doing some institute work.

F. S. Aten is managing a farm near Nevada, Ohio.

E. E. Bogue, '94, is Professor of Forestry at the Michigan Agricultural College and Collaborator in the Bureau of Forestry, U. S. Department of Agriculture.

L. A. Breckler, ex-'04, is engaged in practical agriculture at Defiance, Ohio.

E. N. Beardsley, ex-'99 is farming near Washingtonville, Ohio.

F. J. Boynton is on his father's farm at Haverhill, Ohio.

William P. Bentley, '85, who has been engaged in educational and missionary work in China since 1890, is spending this year in ministerial work at Brad-dock, Pa.

University News.

A large class under the guidance of Professor Plumb is this week attending the International Live Stock Exposition at Chicago. They expect to be gone about five days and a formal permission for their absence for this length of time was given by the agricultural faculty. This is becoming an annual affair and is a very commendable feature, as students derive a great amount of benefit from these visits. Special railroad and hotel accommodations are provided for the party.

Professor Price and Dr. Thompson spent several days at Washington the last of the month attending the meetings of the American Association of Agricultural Colleges and Experiment

Stations. Professor Price also spent a few days at the Chicago International.

Professor Decker will lecture before the New Hampshire Dairymen's Association at Keene, New Hampshire the first of the month. He expects to pay a visit to Cornell University on his return trip.

Although Case's football team will carry off the honor as the state champions this year, O. S. U. realizes with pleasure that she has the best team in the state. The game at Cleveland, October 24, decided the state championship and O. S. U. was defeated by a score of 12 to 0, not because her team was inferior, but owing to the fact that it was her poorest played game of the season. Several hundred O. S. U. rooters attended the game.

O. S. U. took an inspiring brace the following Saturday when she played the University of West Virginia. Although the teams were supposed to be well matched, O. S. U. easily won by a score of 34 to 5.

On November 7, O. S. U.'s team again met the Wolverines on the gridiron at Ann Arbor. If Michigan did score 36 points in the first half, she was tied in the second and her score reduced 50 points from that of last year. Over 600 loyal rooters from Ohio attended the game.

Oberlin was defeated by the O. S. U. team November 14th by a score of 27 to 5. The game was well attended, several hundred Oberlin students being present.

Two men were killed and several others injured by the explosion of a traction engine employed by the agricultural department on the University campus on the morning of November 6.

The dead men are engineer Charles Pepper of Columbus, owner of the engine, and Milton Delgarn who died in the hospital that evening. Professor Vernon H. Davis of the horticultural department, who was feeding the corn shredder which was being manipulated by the engine at the time, was struck on the hand by a flying piece of metal and slightly injured. Six students, spectators, escaped with a few bruises. The exact cause of the explosion may never be known as the engineers were both killed.

Mention has before been omitted of the appointment of Mr. Aleck Argo as herdsman at the University barns. Mr. Argo is a native Scotchman and has spent his life with cattle, so that his judgment, especially in Shorthorns, is never questioned. The increasing number of valuable animals now being secured has made it imperative that an expert herdsman be employed. Mr. M. O. Bugby who acted in this capacity for a part of last year is completing his course in school.

Joseph E. Wing, the popular correspondent for the Breeder's Gazette, addressed a large audience at the University on the evening of the 19th. His subject was "Agricultural Conditions in Some European Countries" and was illustrated with many fine lantern slides.

General Agricultural News.

Canada is about to assume the lead over this country in the matter of teaching agriculture in rural schools. The course about to be adopted in the Dominion is both scientific and practical. The plan is to provide two or three acres of land adjacent to the most important school in several school dis-

tricts in each county, and with the addition of about six other schools there will be formed one garden center in each district. The county will then engage traveling instructors, who must be graduates of the Guelph Agricultural College. When the instructor visits the central school the boys from the seven schools will meet there to receive instruction, which is to be practical and scientific in the various branches of agricultural industry. The instructors will visit one district each day.

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Mr. Barbour Lathrop, of Chicago, who has made several expeditions at his own expense to different parts of the world in search of valuable seeds and plants for introduction into America, has presented such seeds and plants as were secured to the Department of Agriculture for propagation and distribution. It is hoped that many of these specimens may prove of great value to the country, repaying Mr. Lathrop for his patriotic and generous interest in increasing the variety of food and ornamental plants of America.

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By the expenditure of \$300,000 in killing and disinfecting animals affected with foot and mouth disease, the U. S. government has succeeded in entirely eradicating the disease in New England. England has raised the embargo against importing stock from New England ports, thus recognizing the success of the U. S. government.

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The Minneapolis Chamber of Commerce is now planning to recognize macaroni wheat by quoting the market price at the close of each day. This is the first market to do so.

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Corn-wheat is the latest candidate for favor among farmers in the semi-arid

portion of the Northwest. This plant starts the same as common rye, which makes it a most valuable plant for the western farmer, either for hay or green pasture. The flour from this grain resembles cornmeal and when crushed or cooked makes an excellent hog feed. It was imported in 1888 from Germany.

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The Department of Commerce and Labor reports that \$25,000,000 worth of goat skins are annually imported to this country and the demand is increasing, due to the popularity of kid leather for foot wear. It is suggested that a large part of this money could be kept at home by raising our own goat skins.

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It is announced that the Cornell College of Agriculture is to start a college paper, having to do with agricultural education. It would seem that the institution could well support an organ of this sort, considering the rapid development that is taking place, together with the immense amount of printed material that it sends out annually. Another new feature which is proposed is an ideal elementary school established at Ithaca under the control of the college and supplied with pupils from the town, the object being to train teachers in methods of instruction.

* * *

The Louisiana Purchase Exposition will be the first world's fair to provide for the holding of public sales of pure-bred stock, which are assured of crowds of appreciative buyers and good prices. Complete plans have been made for a ring for public sales apart from the main live stock amphitheatre, so that sales may be held without interfering with the judging or other features of the exhibition. Public sales of prize winners and other choicely-bred animals

have come to be a very attractive feature of fat stock shows and the leading state fairs, but no opportunity for this popular method of selling stock to the highest bidder has ever been offered at a world's fair.

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The Kansas College of Agriculture is constructing a \$40,000 auditorium, as provided for at the last legislature. A dairy building is also being erected at a cost of \$15,000.

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A tract of about 100 acres in Kona on the Island of Hawaii, is to be turned over to the Hawaiian Experiment Station for experiments with tobacco. One crop of tobacco has already been grown under shade in Hawaii.

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Mr. N. J. Palmer, a graduate of the Ontario Agricultural College, has been appointed director of agriculture in the Orange River Colony at a salary of \$6000 per annum.

The Attitude of Schools to Country Life.

At the September meeting of the American Pomological Society held in Boston. Professor L. H. Bailey, of Cornell University, delivered an address upon the above subject. He pointed out that our present school system originated with the universities, the ladder of learning being thus let down from above. Further, the agricultural colleges are not filling quite the place that it was expected they would; they have developed agricultural literature, established agricultural science, and have raised the general tone of farm life, but they are not reaching the masses of country people. He urged the teaching of things in which the peo-

ple are interested, and declared the kindergarten the most important thing that has come into our educational system. The vital factor in the teacher should be love and sympathy for the child and not the giving of information, and the schools were declared to be the natural means of giving agricultural education rather than bulletins. Statistics were cited to show that as the children grew older a larger proportion showed a desire to desert agriculture as a means of getting a living, and a reason for this was given in the fact that the teachers themselves were not interested in agriculture and tended to lead the children cityward.

The address was a masterly one, showing clearly Prof. Bailey's breadth of view as an agricultural educator and his advanced ideas regarding agricultural education.

BOOK REVIEWS.

PRINCIPLES OF AMERICAN FORESTRY.

By Samuel B. Green, Professor of Horticulture and Forestry, University of Minnesota; Author of "Forestry in Minnesota." 334 pages, 73 figures, including many half-tones, John Wiley & Sons, New York. Price, cloth, \$1.50.

This book, which deals with one of the most important subjects now attracting the attention of every thoughtful person in the country, is admirably adapted to the needs of students as well as the general reader who wishes to learn more of the subject of forestry in the United States. Professor Green's knowledge of the subject and his ability as a writer are well known, and this last book of his ranks among the very first of the more popular treatises of the subject. We unhesitatingly recommend the book to every one directly or indirectly interested in forestry.

